

** Same seats as yesterday

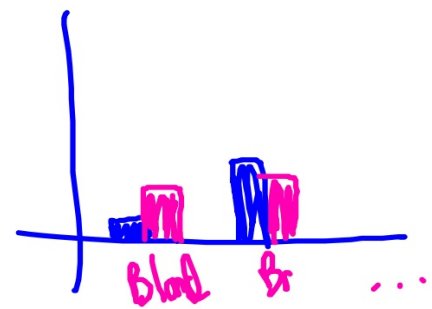
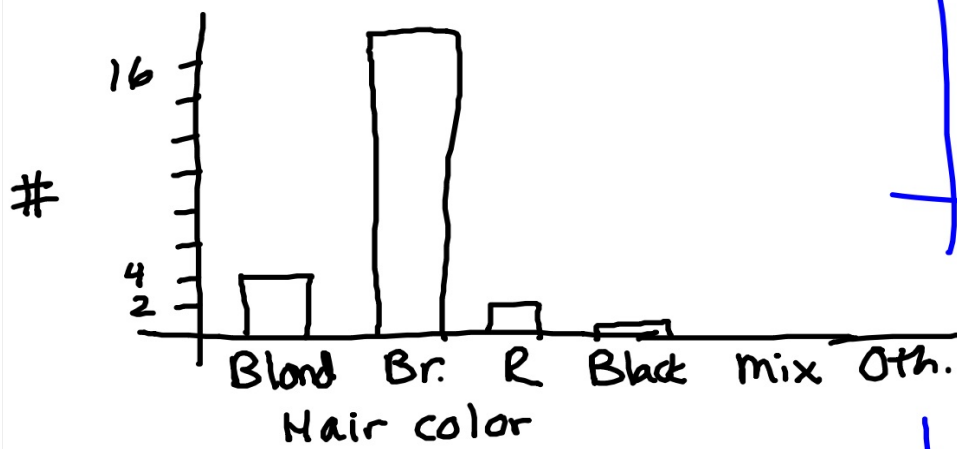
** Get out your HW and class data from yesterday

** Complete the following warm up (on your own):

1) Make a bar chart for hair color for your classmates

2) Make a pie chart for Zip code

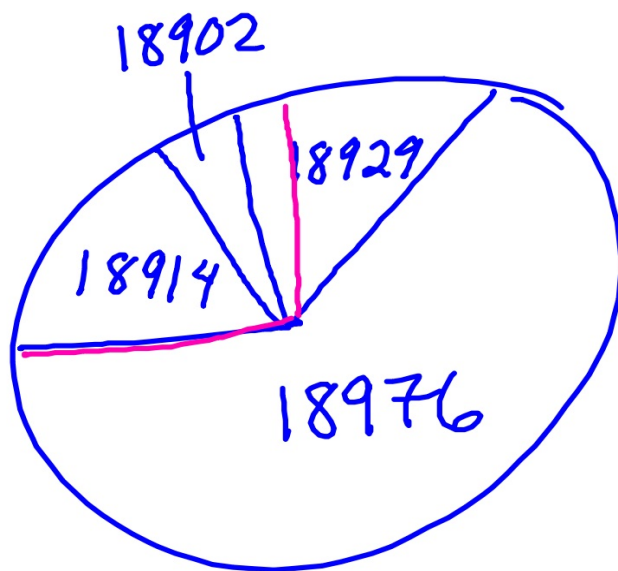
① Bar chart



females

males

② Pie chart



18902	4.4%
18914	17.4%
18929	13.0%
18976	65.2%

~ 78

Activity 2.1B

- Turn to page 41 in the book
- Read the directions for the activity
- Let's demonstrate

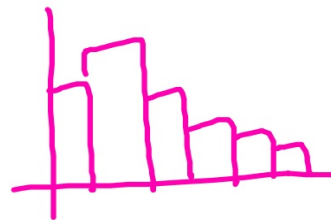
Section 2.1 (continued)

Categorical Distributions (pictures):

- 1) Bar chart
- 2) Pie chart

Quantitative Distributions (pictures)

- 1) Dotplots
- 2) Stem plot (Stem and Leaf plot)
- 3) Histogram



DOTPLOTS!

- already know these

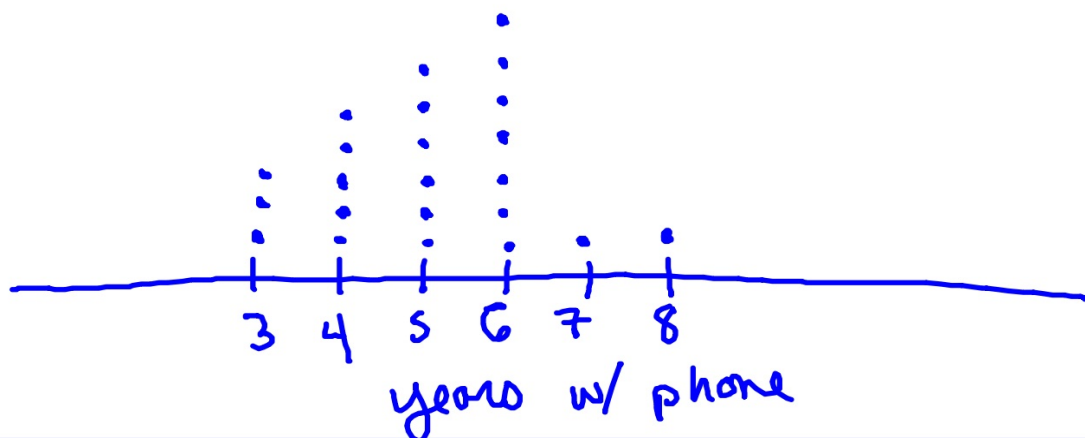
- label!

axes

- Example:

Make a dotplot for the number of years that the class has owned a cell phone

Question 15



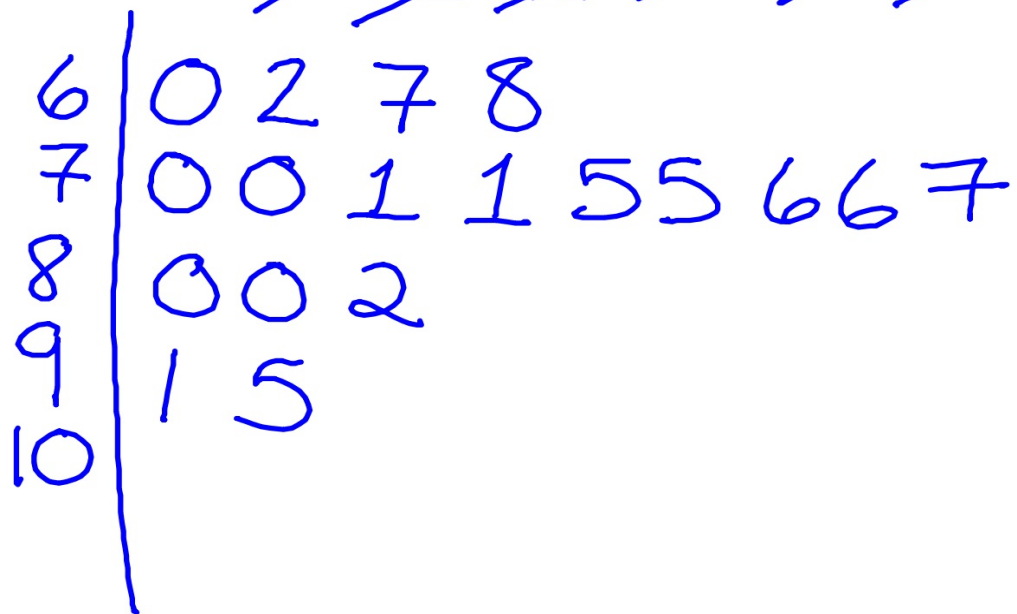
Try this one....

Make a dotplot for the number of siblings your classmates have:

Stemplots!

Example: Test scores:

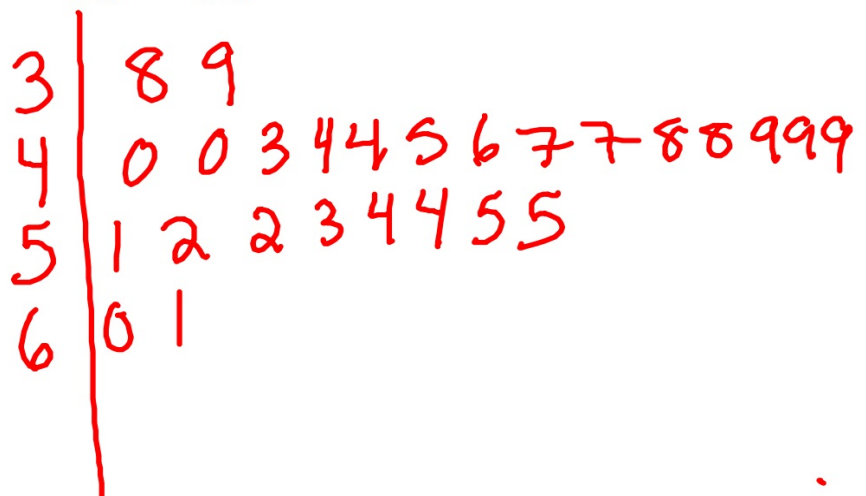
~~96~~ ~~105~~
~~75~~ ~~80~~ ~~82~~ ~~70~~ ~~71~~ ~~71~~
~~68~~ ~~60~~ ~~95~~ ~~91~~ ~~77~~ ~~76~~
~~70~~ ~~67~~ ~~62~~ ~~75~~ ~~76~~ ~~80~~



Try this one...

- Make a stemplot of the following list of ages of parents of seniors at CB South:

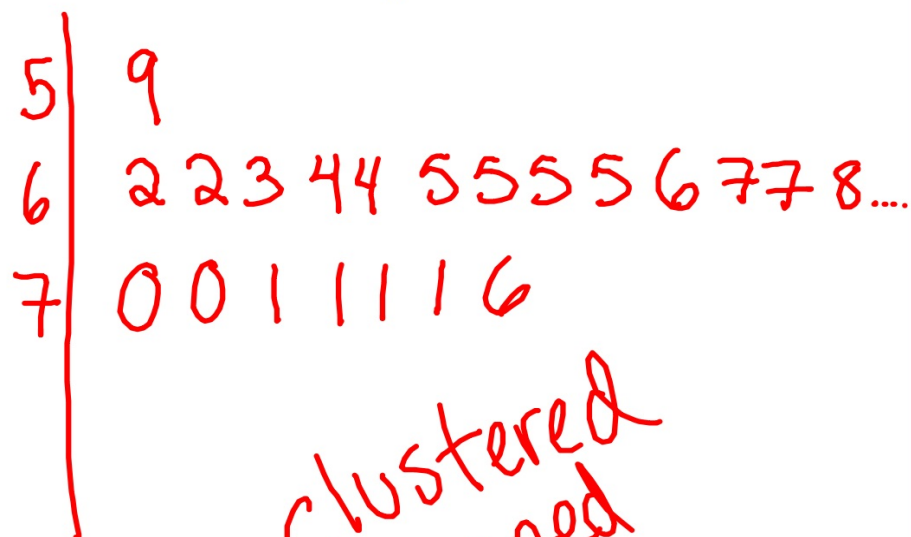
38	44	48	40	45	49	52	60	39	44
43	49	51	55	61	54	52	54	46	47
48	40	47	49	53	55				



Try this one....

$$60'' = 5 \text{ ft.}$$

Make a stemplot of the HEIGHTS of your classmates



clustered
clumped

Splitting Stems

When?

data is clustered

How?

- 2 stems for 10 digits

50-54	5		
55-59	5		9
60-64	6		- - - - -
65-69	6		- - - - -
	7		- -
	7		.

5	
5	
5	
5	
5	
5	
6	0 1
6	2 2 2 3 3
6	4 4 4 4 5 5 5 5
6	
6	
7	
7	
7	
...	

Warm Up:

Create a stemplot.

Test scores again:

70	77	78	72	73	78	67	68	90	88
77	81	82	86	78	78	78	79	84	88
86	87	84	83	75	77	75	71	70	69

Comparing two sets of data: Back to back stemplots

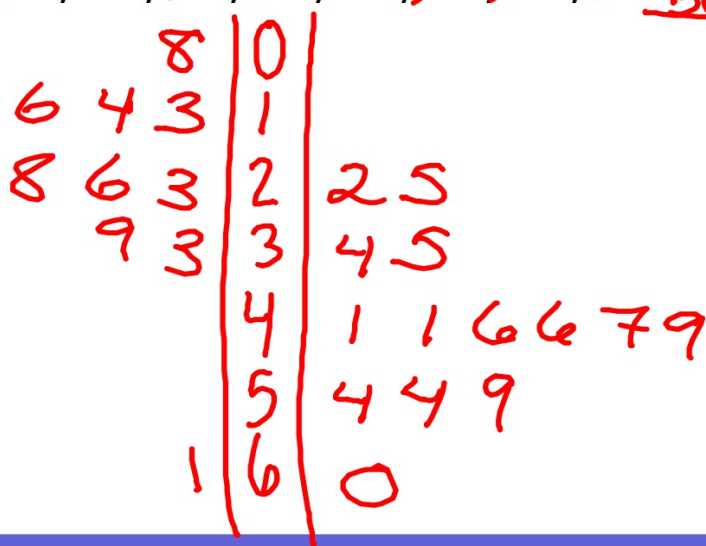
Example:

Babe Ruth's homerun totals each season for the Yankees:

~~54, 59, 35, 41, 46, 25, 47, 60, 54, 46, 49, 41, 34, 22~~

Roger Maris' homerun totals for the Yankees:

maris ~~08, 13, 23, 33, 28, 16, 14, 39, 26, 61~~ Babe



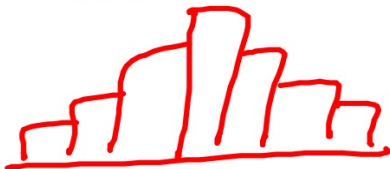
Try this one:

Men:	23	24	55	40	48	49	45	29	33
	37	39	38	30	35	36	39	21	36
Women:	15	11	12	14	19	18	23	30	31
	21	32	22	26	27	28	23	21	20

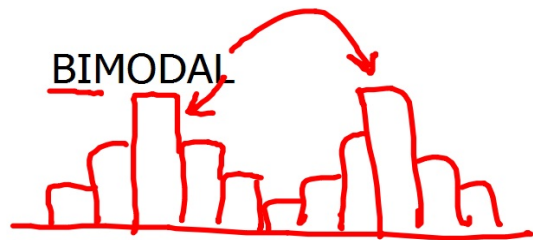
DESCRIBING DISTRIBUTIONS: Shape, Center, Spread

SHAPE

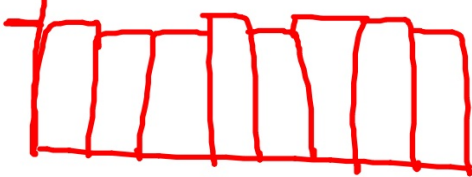
MODE: UNIMODAL



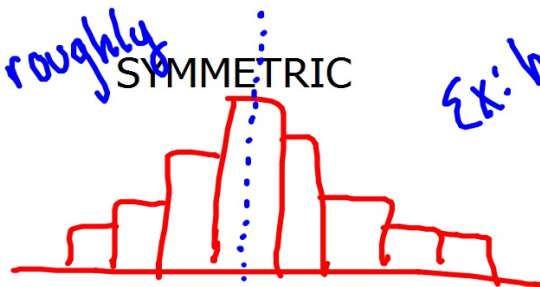
BIMODAL



SHAPES: UNIFORM

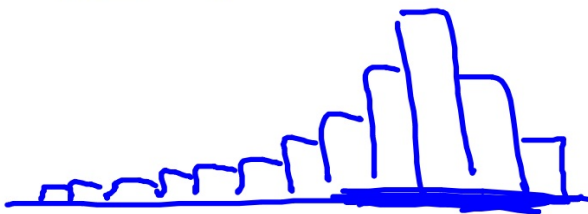


roughly SYMMETRIC

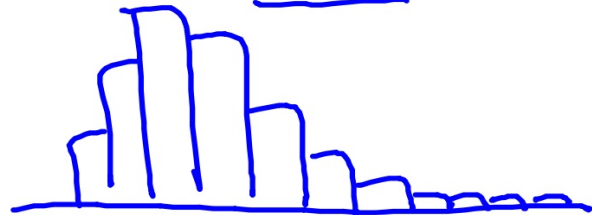


Ex: heights

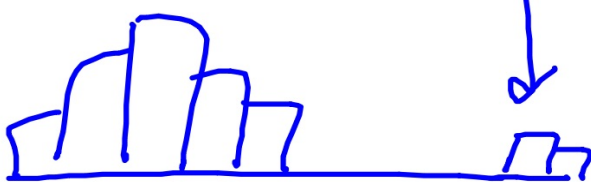
LEFT SKEWED (*trail*)



RIGHT SKEWED



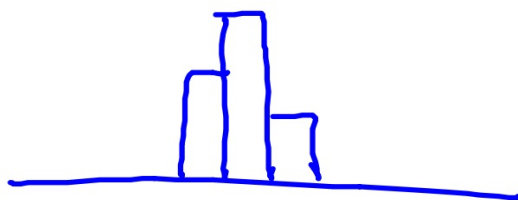
OTHER: OUTLIERS



GAPS

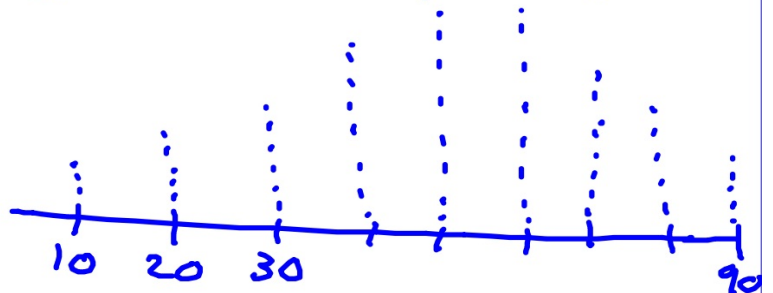


CLUSTERED



small
range

~~*~~ **GRANULARITY**
Ex: MC test, 10 ?'s



consistent &
understandable
gaps

CENTER:

MEDIAN:

$\frac{1}{2}$ way point

* approx.

MEAN (average):

SPREAD:

RANGE:

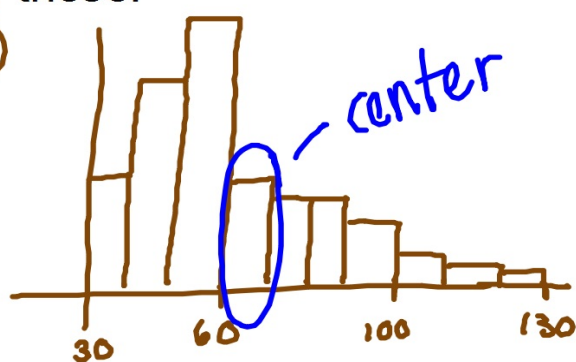
(lowest, highest)

(0, 7)

(7.1%, ~~17.3%~~ 17.3%)

Try these:

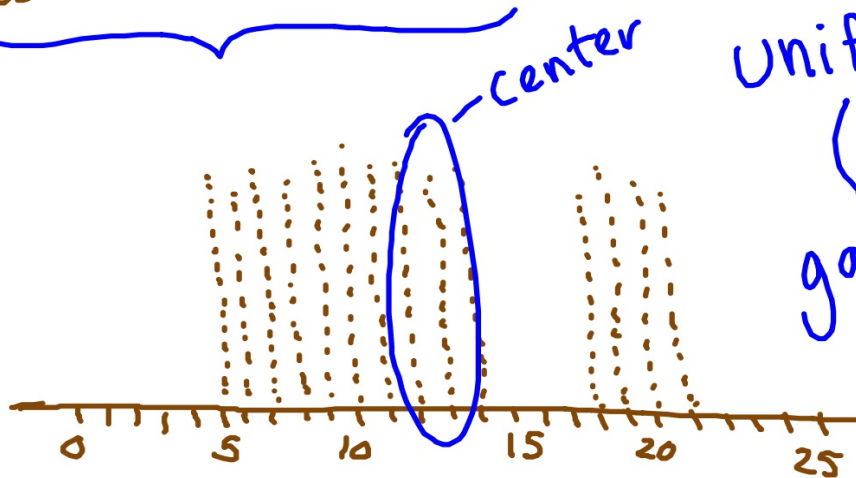
①



rt. skew.

(30, 130)

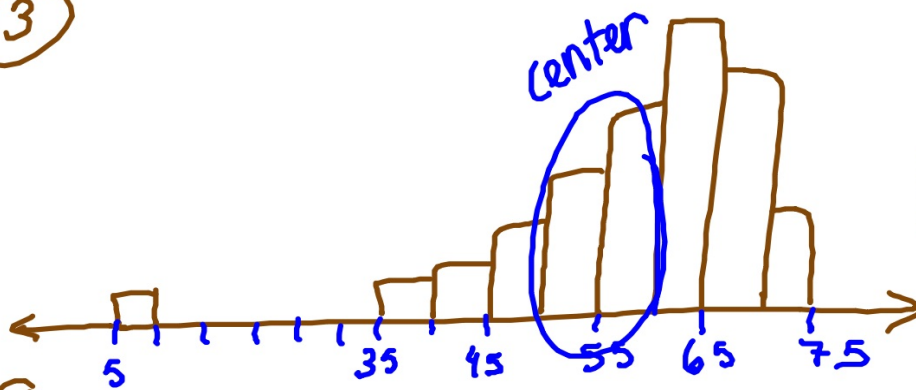
②



uniform
(5, 21)

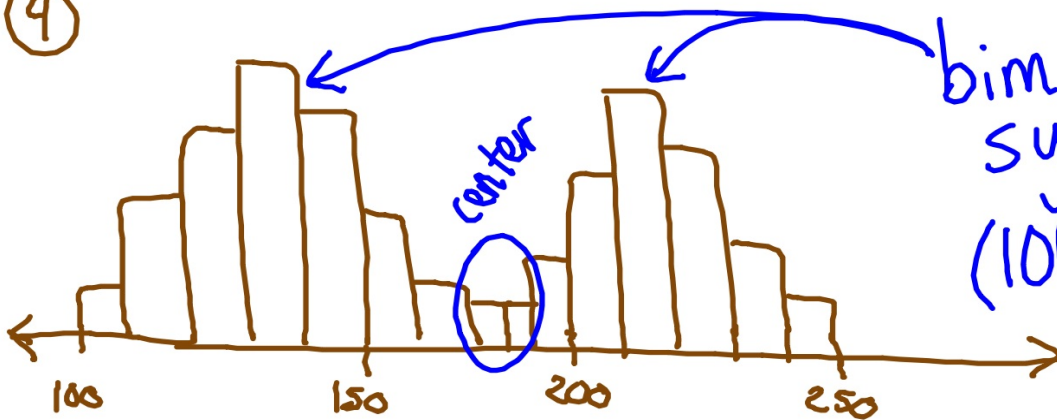
gap btw.
14 and 17

③



left skew
(35, 75)
w/ outlier @
5

④



bimodal
symmetric
(100, 250)

Inputting and working with lists:

Complete the worksheet with a partner. You will need a calculator link.

Please transfer the following lists to your calculator:

GPA

INCOM

SATMF

SATMM

TEST

Then complete the warmup worksheet with your partner

Also, have you HW out

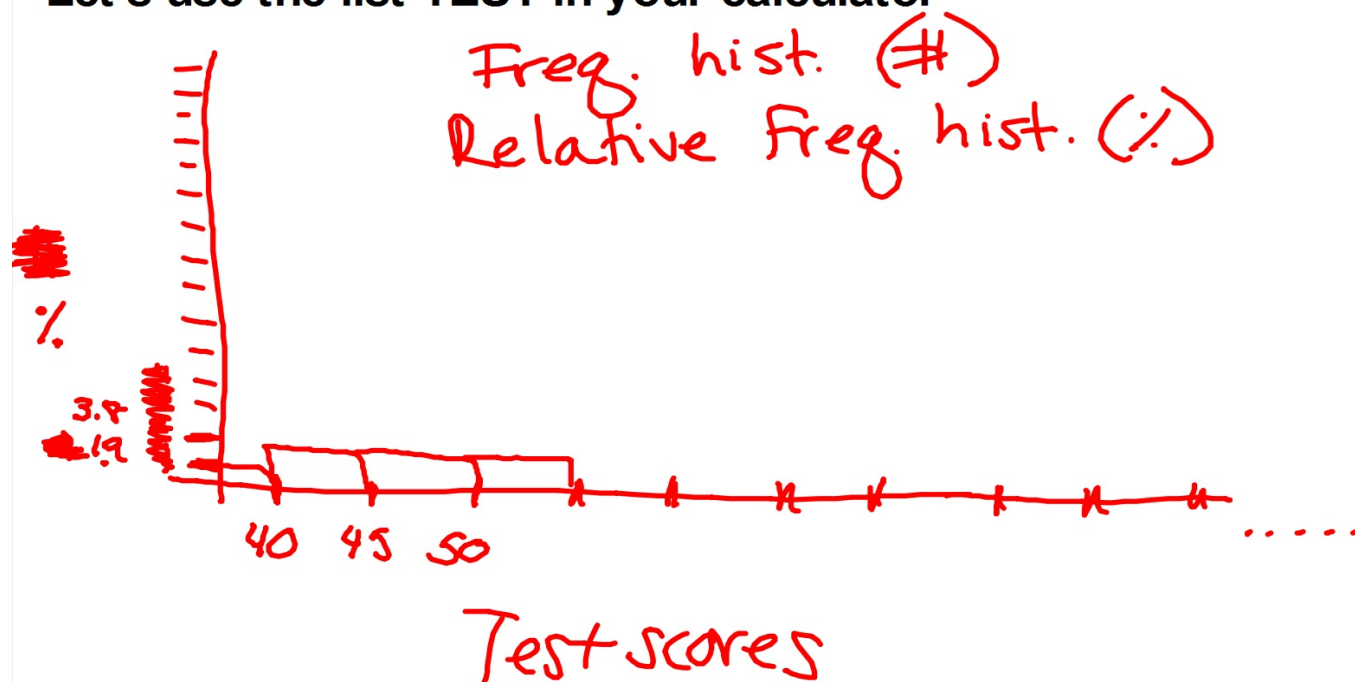
Another quantitative distribution: HISTOGRAMS!

Example of a histogram:



How to make a histogram on the calculator:
see page 52-53 in book for instructions

Let's use the list TEST in your calculator



Histogram Examples:

Example 1: Using the class data of AGES IN MONTHS, create a **frequency** histogram on your paper

Examples 2: Using the list INCOM, create a **relative frequency** histogram on your paper

Example 3: Using the list GPA, create a **frequency** histogram on your paper

340, 211, 206, 209, 209, 210, 219...

Answers to examples:

Review of 2.1:

p. 57-58

#19, 20, 21, 26 (use data for histogram, not stemplot)